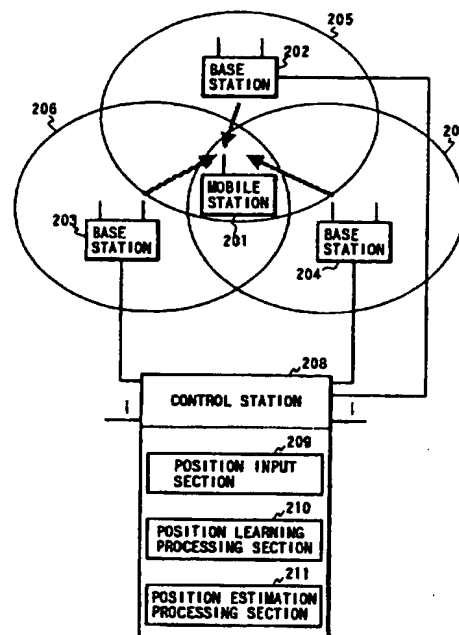


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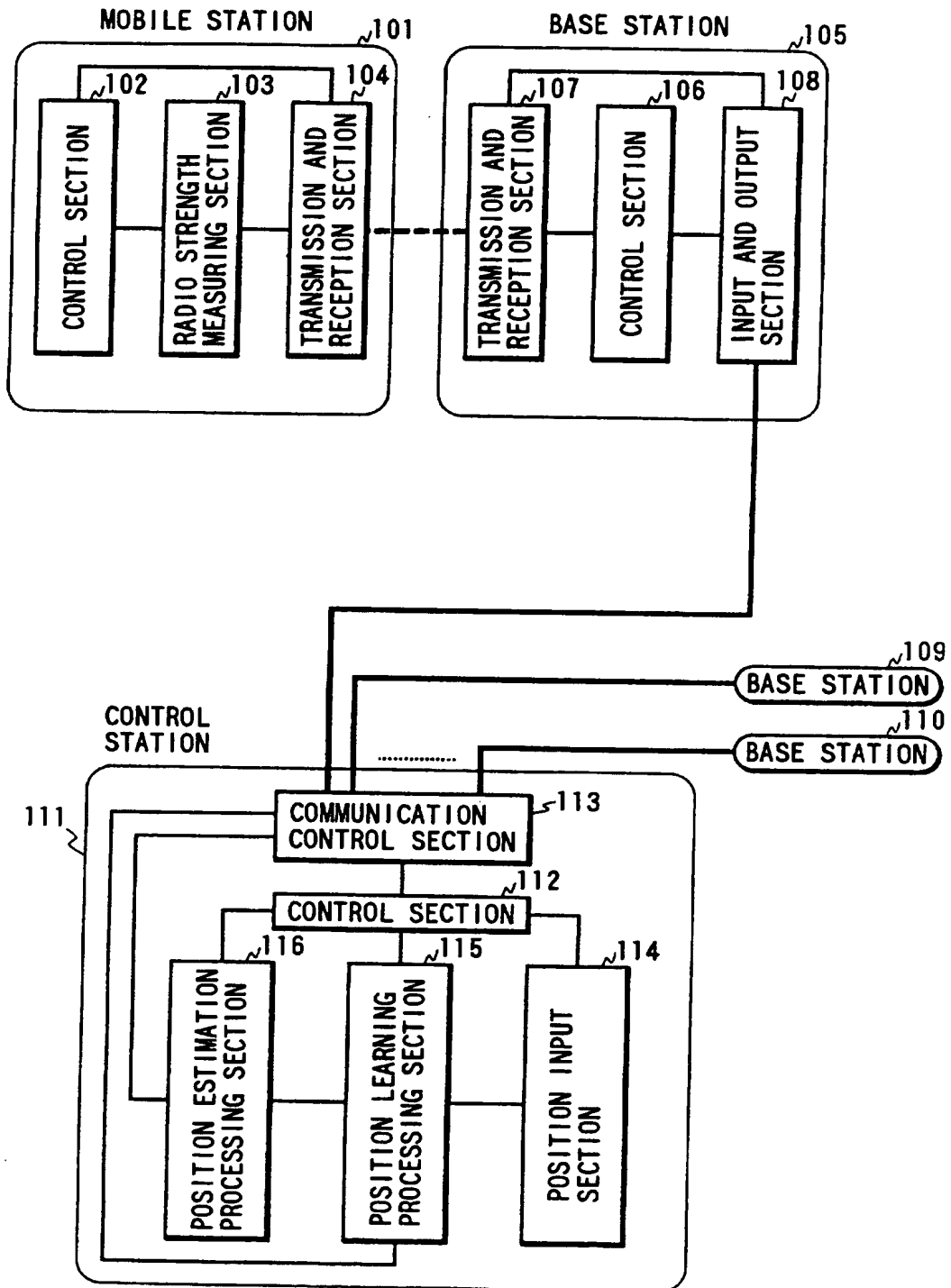
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INT CL⁶ H04Q 7/38
ONLINE DATABASE:WPI****(74) Agent and/or Address for Service****J A Kemp & Co
14 South Square, Gray's Inn, LONDON, WC1R 5LX,
United Kingdom****(54) Estimating the position of a mobile station in a wireless communication system**

(57) A mobile station 201 measures signal strengths from a plurality of base stations 202-204 and correlates them with measurements made previously at a plurality of known positions, in order to estimate its position. Alternatively a plurality of base stations measure the signal strength from a mobile station, and a control station 208 correlates them with measurements made previously of a mobile at known positions. A neural network in the mobile or control station learns from the measurements at known positions in order to estimate a current position. Alternatively a comparison method is used in which errors between calculated distances from each base station are correlated. In both cases the position is estimated to within a range smaller than the distance between known positions. The position of mobile chargers may be used as known positions. A user may through his mobile find the position of his own or a different mobile. Repeat measurements at the same position, position history and scheduled user movements may be used to exclude inaccurate measurements. The moving speed of a mobile may also be obtained. The estimated position may be a room. Position estimation may be done during a call.

FIG. 2**GB 2 311 697 A**

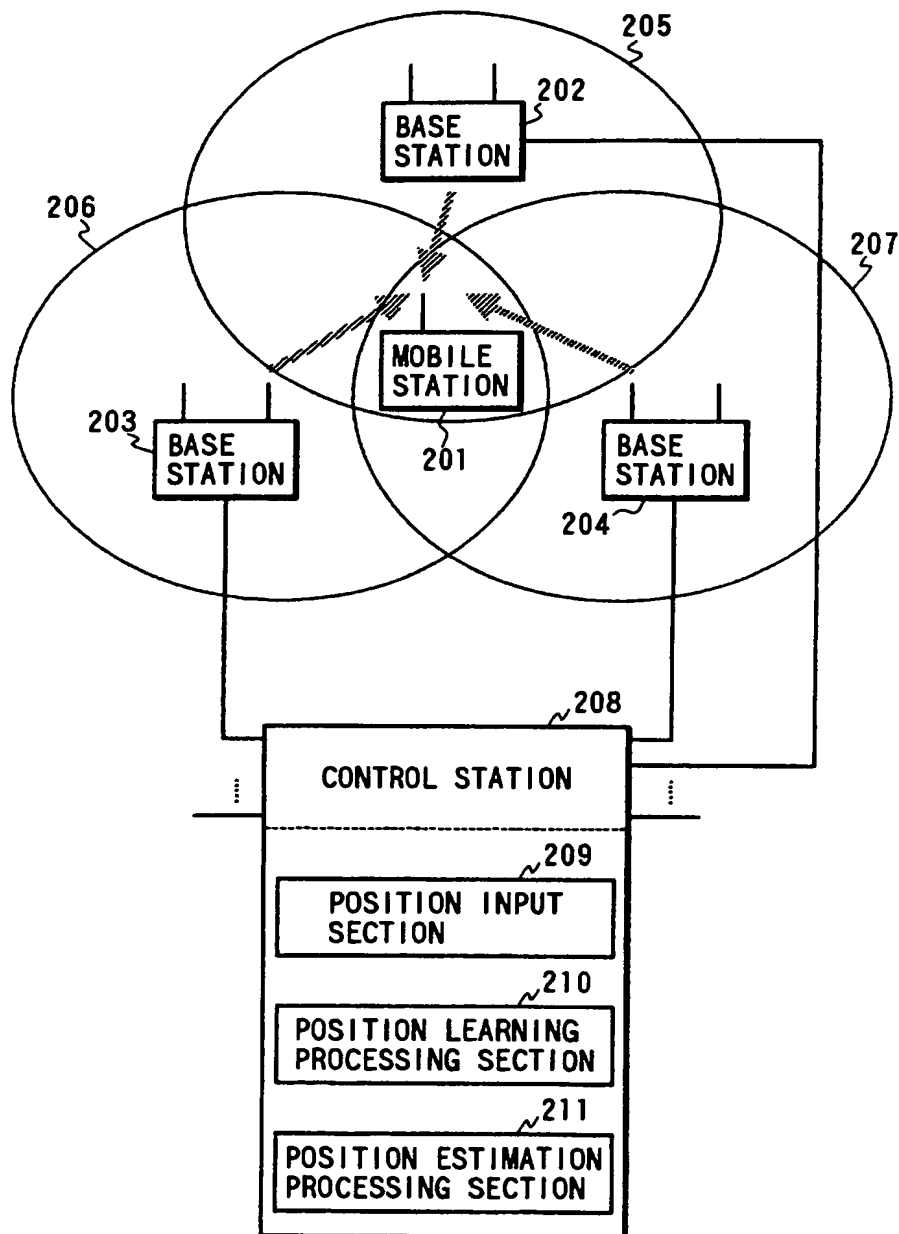
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FIG. 1



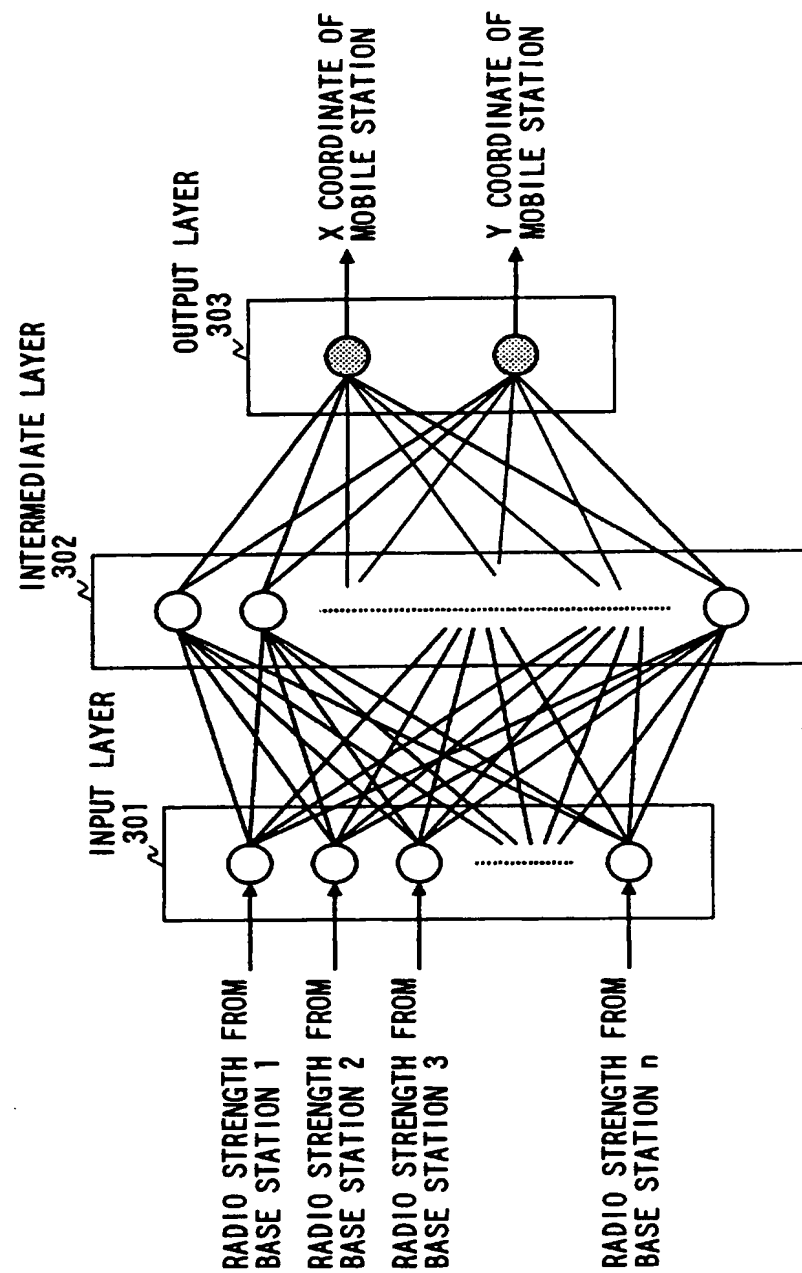
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FIG. 2



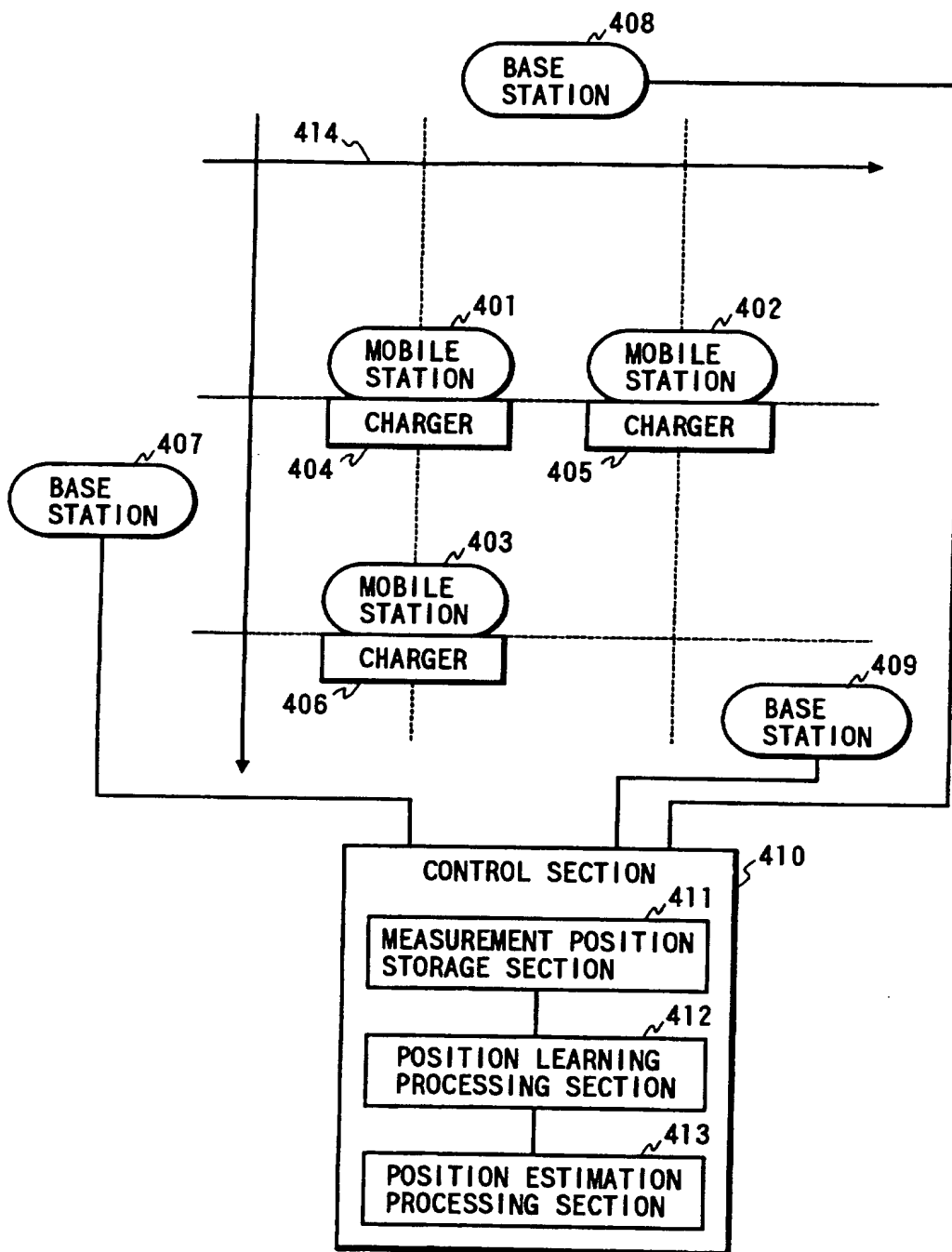
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FIG. 3



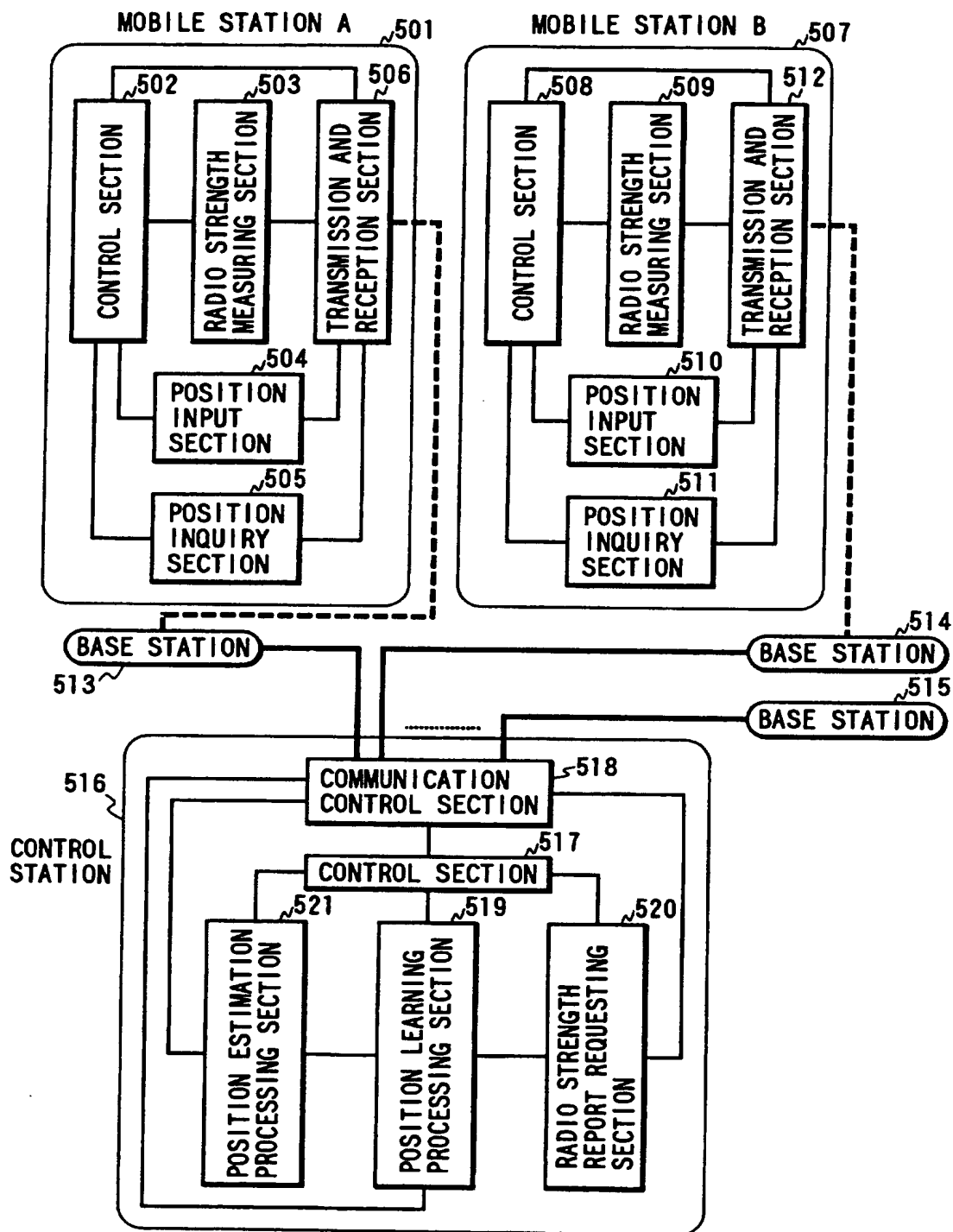
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FIG. 4



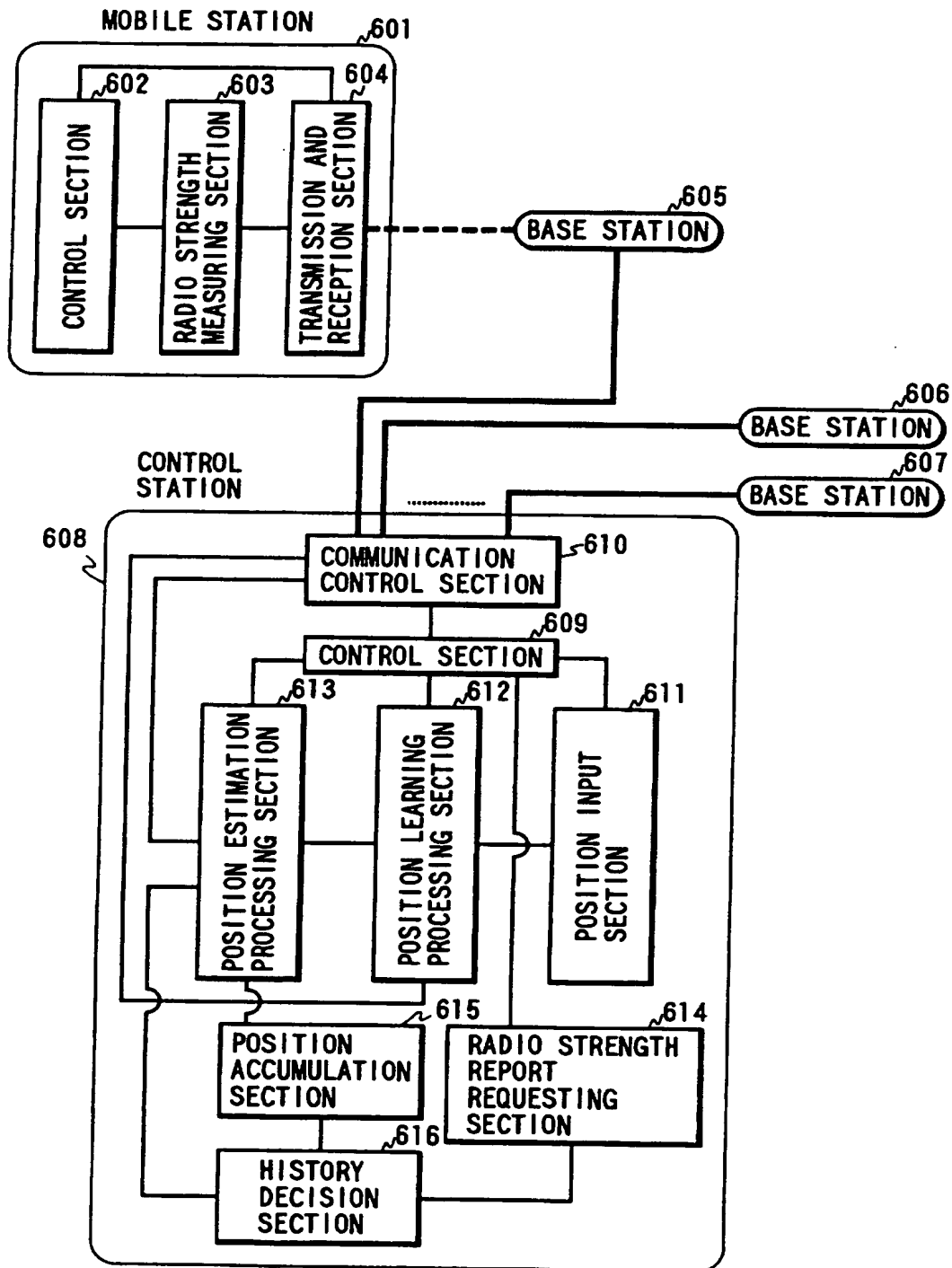
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FIG. 5



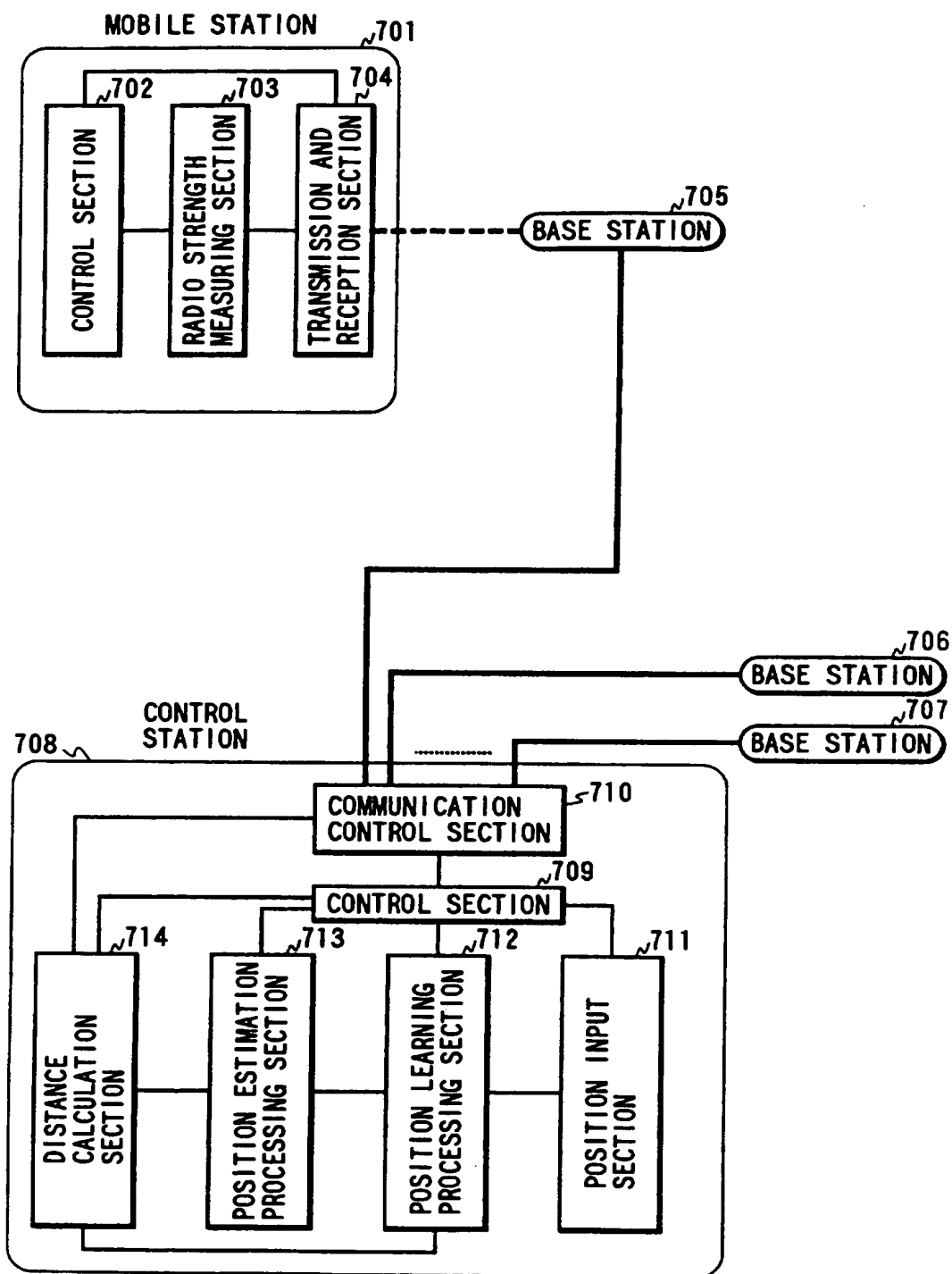
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FIG. 6



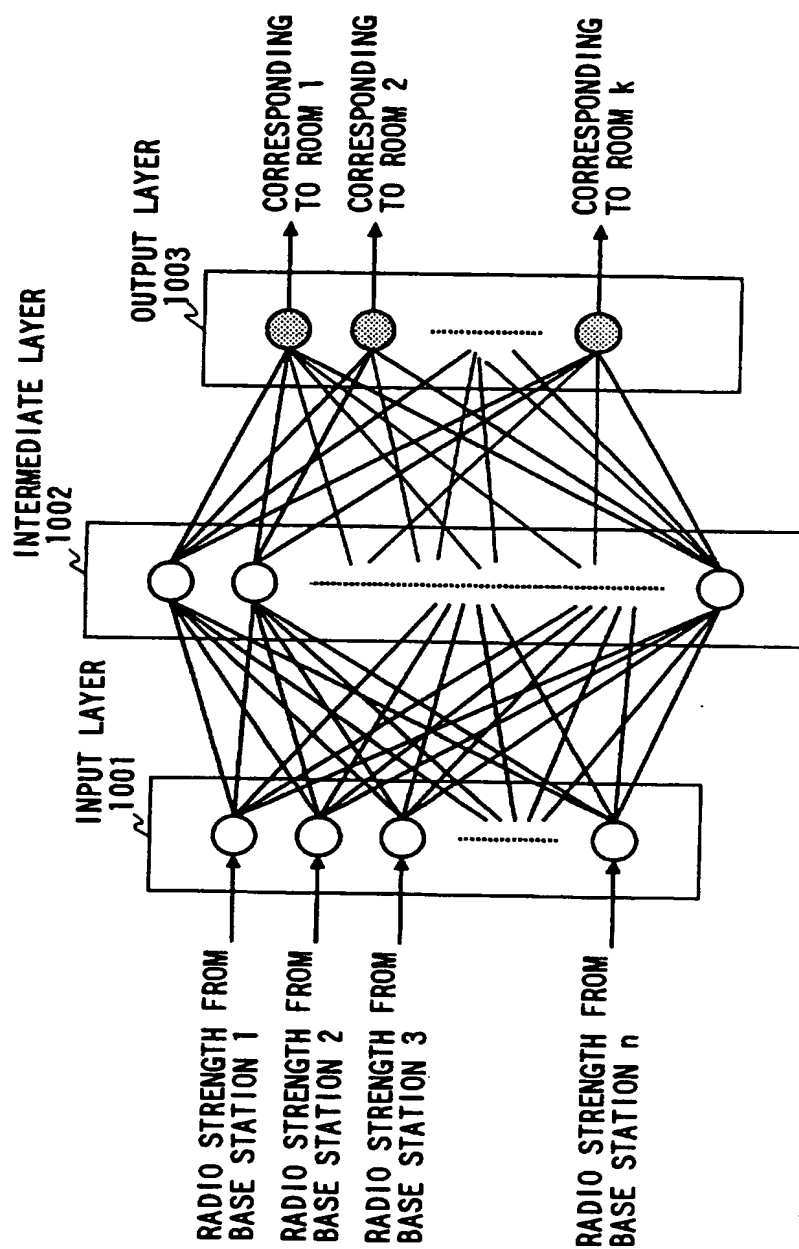
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FIG. 7



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FIG. 8



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FIG. 9

